

**CENTRAL REGION SHELLFISH STAFF MEETING  
19-20 FEBRUARY 1997, ANCHORAGE**

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<sup>1</sup>This contribution is from the Homer area office. The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Commercial Fisheries Management and Development Division.

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## INTRODUCTION

This report attempted to capture the general theme and major details of discussion during the annual staff meeting for Central Region commercial shellfish fisheries. Stephen Fried and Charlie Trowbridge reviewed this report and provided valuable comments. In some cases, discussion notes were restructured or pooled to improve continuity and cohesiveness of the overall documentation. Meeting action items (Table 1) and a list of attendees (Table 2) are attached. The attendees list indicates all individuals who participated in this meeting; although some individuals were present for only a portion of the meeting. A variety of handouts, as distributed in draft form at the staff meeting, are also attached. Many of these handouts were subsequently modified prior to formal release to the public. Bechtol also distributed a summary showing, if available, the year and harvest from the most recent commercial fishery, the average commercial catch for years when fisheries occurred, the year and harvest from the most recent sport/personal use fishery, and the survey type and frequency. Bechtol will work with Sport Fish staff to update and summarize sport fish/personal use data as it becomes available. Requests for more information on a topic should be directed to the appropriate biologist.

After introductions, Trowbridge discussed the meetings objectives and the need to reinstate a fall staff meeting to better prepare for fisheries early in the calendar year. Bechtol suggested a meeting date of late-October or early-November to allow an opportunity to review ADF&G assessment and fishery data, and discuss future fishery strategies, prior to the November Gulf of Alaska Plan Team meeting. Bechtol and Trowbridge will pursue a specific date which avoids the October Lowell Wakefield Symposium, the Board of Fisheries sessions on 21-23 October and 4-14 November, as well as other pertinent dates.

## ADMINISTRATION

### *Budgets*

*FY97 Preaudit/FY98 Outlook.* Brady reported all pre-audit data had been entered, excluding line 500 requests. Regional staff will meet on Friday to finalize budgets; pre-audits indicated a deficit of \$49k without line 500. An anticipated \$70k or more in revenue from vessel charters should ease the shortfall. However, moving expenses at \$5k each for Charlie and several new hires were not pre-audited. Hilsinger reported signing a PR for Homer office server and software. However, the status is uncertain for pre-audit "wish" items, including: \$9.4k for bar code data logger, and \$2.5k for trawl cables; shrimp pots were moved from line 500 to line 400, but purchases will depend upon Friday's review. Fisher (Administration) removed the \$3.5k for a computer and the \$2.7k balance from the general fund (GF) budget to use for partial purchase of a second computer. During a meeting break Trowbridge contacted Rigby (CFM&D-HQ) regarding financial support for the purchase of a fish ticket computer; the fish ticket program budget can possibly purchase a CPU only at this time, but any additional equipment funding will not be available until next year. Bechtol is still reviewing groundfish

program receipts that could total \$66k, including \$48k from pollock and \$18k from sablefish, although some sablefish checks are still due. Expenditures include \$30k for the pollock acoustic survey, \$26k for sablefish, and another \$2k for technician time, which could leave around \$8k.

Brady distributed copies of yellowbook sheets with FY98 requests for groundfish and shellfish; staff should direct comments to Brady. Any changes for FY99 requests should be submitted before the September due date.

Governor Knowles recently visited several Alaskan fishing communities and expressed support for slight budget increases for the management and research of crab and groundfish. Clasby requested that staff submit a budget increment request through G. Kruse (CFM&D-HQ) to focus on major management gaps, including scallops, nearshore rockfish, Pacific cod, sablefish, and king, Tanner and Dungeness crabs. Kruse suggested hiring a position, possibly a biometrician, to work statewide, but to also help regionally with scallop and groundfish assessment. Fried was concerned that a statewide focus may have difficulty prioritizing and that we would do better with a regional position focusing on regional issues, but being able to provide expertise on species issues to other regions. A long-term approach could focus on expanding our acoustic assessment capabilities, although data analysis for this assessment can be very intensive. Trowbridge and Bechtol concurred with the need to better develop our acoustic expertise given the limited bid interest in our pollock hydroacoustic survey and the increasing charter vessel costs. Bechtol also expressed a desire to expand our underwater video capabilities to facilitate survey gear catchability estimates, and also identified the need to have a technician available to sample non-summer fisheries. An FB II position that would have some acoustic experience, but also some biometrics and programmer/analyst skills to facilitate data analysis was discussed. Our approach could also include additional technician time to facilitate data collection. Brannian and Hilsinger both suggested we contact Tarbox regarding assistance from his acoustic technicians. The objectives of an additional budget increment were discussed. A major emphasis would be to improve our pollock acoustic capability. Hilsinger and staff proposed a 3-year project cycle during which we could contract NMFS to extend their triennial trawl survey into PWS; a second year could focus on scallop assessment, including video work, and the third year on rockfish or Pacific cod assessment. A \$135,000 budget proposal (shown below) was developed as being able to provide for some annual funds for cyclic budget needs, while facilitating ad hoc data collection needs, such as pollock genetic sampling or infrequent equipment purchases.

Proposed shellfish/groundfish budget increment.		
Line Item	Description	Allocation (x \$1,000)
Line 100		
FB II	12.0 mm	60.0
FWT III	4.0 mm	20.0
Line 200		3.0
Line 300	Vessel Charter	40.0
Line 400		5.0
Line 500	Video Equipment, Tags	7.0
Total		135.0

### *Personnel*

Several interesting applications were received for the Cordova FB II position; the application deadline was 18 February; interview questions and dates need to be finalized. Interviews for the *Pandalus* BO I position are underway. B. Harris will be on work status in early May; his LWOP date at the end of the season is unknown at this time. Bechtol discussed staffing for the 1997 surveys and invited regional staff to participate whenever possible. The fish ticket position should be available to help on some surveys.

The option of an additional seasonal Boat Officer I to be shared between the *Montague* and the *Pandalus* was discussed. This position could be funded out of the vessel charter costs. In addition, the *Montague* may need a minimum of two crews in May and June due the intensive survey hours of Willette's SEA projects. In addition, the *Montague* houses and feeds staff working off-vessel. Hilsinger suggested we increase the *Montague* charter rate to Willette, using receipts to pay for additional crew.

### *Integrated Database*

Khalsa described the program to develop a client server database, centrally located in Juneau but with read-and-write access options for area offices. Although specifics are still being developed, this will be a relational database capable of ad hoc queries, similar to the existing TIX system. Khalsa sees this as an opportunity to fix old problems. For example, statistical area searches now access a single look-up table, but due to changes in management structures, single statistical areas may fall under different management areas in salmon than in groundfish. Creation of the new database will be funded through AKFIN, and will involve coordination with NMFS programmers. NMFS has hired a coordinator for their responsibilities; ADF&G headquarters staff, mainly Eggers, DiCostanzo, and Rigby, are still resolving supervision of the yet-unhired ADF&G coordinator. The database will probably be programmed in ORACLE, which is quick, powerful (versatile), and stable when handling large amounts data, but the tradeoff is a high purchase price. Some items, such as electronic satellite data entry from handheld devices in the field are not likely to be implemented. ADF&G also does not support electronic fish ticket data entry from processors because of uncertainties over legal responsibilities for inaccurate data.

Khalsa presented results of a survey to establish priorities for integrating the shellfish database. Meeting attendees discussed and prioritized database needs; fish tickets will be a top priority. Khalsa also discussed Hypernews, intended as a discussion and information forum available through the State of Alaska home page on the Internet. Khalsa will send instructions on becoming a Hypernews member; membership includes an option to be notified through email when someone posts a topic you've listed as an interest.

With respect to prioritizing database options, staff suggested combining data sets with closely related data fields into similar related program "packages". For example, a program with fish

tickets, vessel fishery registration, and CFEC data, such as vessel length and CFEC permit numbers, was seen as a high priority and could potentially be "linked." The need to develop uniformity vessel length measurements, such as water line or overall, was also discussed. Homer staff will contact CFEC regarding which measurement they use.

### *Vessels*

Copies of the *Montague* and *Pandalus* survey schedules were distributed. Because of the duration of trawl surveys in 1997, vessel staffing for August remains undetermined.

### *Administrative Staff Comments*

Representatives from Anchorage Administration section reminded staff that the annual clearing house for hiring will be activated 7 March. Administrative staff described the proposed new hiring policies; these new policies will likely resulting in an elimination of the state hiring register. It will be the responsibility of the hiring manager or personnel office to verify that applicants are qualified for the job being filled. Human Resource office staff will be available to assist if needed. Staff also described changes to the position descriptions (PD's). A new organizational chart should be available soon.

Administration is continuing to research the use of credit cards for field office purchases; no one in Homer requested credit card authorization. Individual purchasing authority will increase to \$2,500 in the near future. Staff using air charters will need to comply with the new aircraft charter guidelines being issued sometime after 6 March. The open enrollment period for health benefits will change effective 1 July. Benefit choices will also vary depending upon whether staff are GGU or SU employees.

## **COOK INLET SHELLFISH**

### *Dungeness crab*

Trowbridge distributed data on historical harvests and surveys data sheet. Dungeness has been closed commercially since 1991 and a Kachemak Bay opening is not anticipated in 1997. Hilsinger distributed copies of the Cook Inlet Dungeness Crab Management Plan drafted by Kimker and showing the 15.0 crab/pot threshold to open a fishery based on a pot survey. In recent years, pot surveys have been conducted inside the Homer Spit during June, July, and August; the July 1996 catch of 59 legal male Dungeness from 90 pots approached the historic low CPUE. The survey involved a chartered fishing boat using commercial gear and selling the catch to cover survey costs, with funding supplemented by other program receipts. Under existing funding, the pot survey is not likely to be extended outside the spit until a commercially

harvestable resource develops. Our survey 1996 catch increased slightly in total males, although most of that was sublegal males. Dungeness stock status, including areas outside the spit, is also monitored through beach counts of molted carapaces and the multi-species trawl survey. Trowbridge and S. Meyer (Sport Fish) will continue the carapace counts and Trowbridge will continue the pot survey inside the spit. Dungeness survey reports were current to 1995.

Athons and Hepler discussed the Kachemak Bay recreational fishery for Dungeness. The recreational harvest has averaged 42k lb with a record harvest of 102k lb in 1987 but only 18k lb taken in 1995. For 1996 recreational users were required to obtain a shellfish permit that served as a fishing log. Users are required to return the logs to ADF&G after the March closure of the 1996-97 season; harvest data will then be summarized. In future years, permits will be obtained by mail, with applications available at ADF&G offices, in the recreational regulation books, and hopefully through the Seldovia harbormaster. The means to better document effort and discards was suggested for future permits; and the estimation of discard mortality was offered as a long-term goal. Future permits will apply to households to resolve some effort discrepancies in the current system. Staff expressed concerns that the shift to mail out permits will reduce public contact and opportunities to discuss biodegradable twine, escape rings, and resource issues. Hepler stressed that Sport Fish intends to maintain public contact through dock and office interviews, as well as at-sea sampling from the skiff being transferred from CFM&D.

Uncertainty in a threshold to close the recreational fisheries for Dungeness and Tanner crabs was discussed. Sport Fish has approximately \$4k to apply toward crab research. A suggested option was to extend the pot survey outside the spit, and develop a cooperative tag study to examine Dungeness growth, migration, and abundance. This study could also explore whether Dungeness inside and outside the spit comprise different stocks. Hepler cautioned that the Board will be looking for answers to: (1) whether the fishery is sustainable, (2) what is handling mortality, particularly when an intensive fishery occurs over a small geographic area and the same crab may be caught and released many times, and (3) do some portions of the area need to be closed? Trowbridge will research data on Dungeness handling mortality. Trowbridge also thought a sport closure is justified given the three surveys last year yielded a total of 13, 59, and 59 legal male crab. Hepler pointed out Sport Fish is discussing options including a total closure, time and area closures, limit changes, and the determination of a sustainable recreational catch. N. Szarzi will assume LCI shellfish research and management responsibilities for Sport Fish beginning 1 May. CFM&D and Sport Fish staff, including Bue and P. Hanson (SF - Anch), will further examine survey options.

Hilsinger questioned the potential impacts of federal subsistence management on Dungeness. The federal system prioritizes subsistence above all other uses, acting toward conservation only when subsistence needs cannot be met.

### *Tanner crab*

The commercial Tanner crab fishery has not opened since 1994. In Kamishak, the major concern remains a buildup of skip-molts that fail to molt into post-recruit (>165 mm carapace width) and, to a lesser extent, recruit (140-165 mm) size classes. The 1996 Kamishak trawl survey estimated 316k oldshell recruits, with only 88k new recruits. Virtually no post-recruit crab have been caught since trawl surveys began in 1990. Given this scenario, the Kamishak population must have been extremely large to support the magnitude of fisheries that occurred historically. Another possibility is that the years of intensive fishing have genetically selected for terminal molt crab. The 1997 survey is scheduled for 8-16 June.

The 1996 Southern District trawl survey (Kachemak Bay) estimated no post recruit crab and only 92k recruit crab, nearly half which were old shells. A commercial fishery is not anticipated in the near future. The trawl survey provides a minimum population estimate and the August 1996 survey of Kachemak was not as extensive as during some years. However, given low crab catches, and the potential for gear damage if the survey were extended to marginal habitat areas, the 1996 survey was limited to the 20 successful tows in prime Tanner habitat. The 1996 survey was also hampered by staff limitations due to timing conflicts with the Kamishak scallop fishery. The 1997 Kachemak survey is scheduled for 26 June to 2 July.

Sport Fish staff discussed Tanner recreational harvests from the Southern District in recent years. Participants in the recreational fishery must now obtain a permit from ADF&G Sport Fish. The current harvest estimate for 1996 is 27,000 crab which compares to a trawl survey population estimate of 100,000. Staff spent a substantial amount of time discussing whether a 27 percent harvest rate is sustainable. Staff were uncertain about how to define a closure threshold.

Staff discussed the need to develop a regulatory management plan for the commercial fishery, as well as to identify inter-divisional management objectives and thresholds. Trowbridge expressed concerns over the management of a low-level commercial fishery given the existing fleet size. We would need 250-300k crab harvestable surplus prior to a commercial opening.

Hepler acknowledged the need to develop a management plan. Szarzi will work with the commercial staff to define biological sideboards and then work with users to develop management plan proposals for a future board cycle. Based on existing recreational permit returns, Sport Fish staff will have a summary available for the upcoming board meeting.

Trowbridge discussed the change in Kachemak Bay fishing patterns, the intensity in effort for a relatively small area, and the degree of skipmolting in the pre ones as causes for concern. Greater fishery enforcement is needed during the winter. Bechtol stressed the need to schedule the *Pandalus* for a lost pot clean-up in Kachemak Bay during the first half of January 1997.



### *King Crab*

The last commercial fishery occurred in 1983. Although the trawl survey catch of king crab increased by 33% (from 3 to 4 crab) in the southern district and the Kamishak catch of 31 crab was the largest in the trawl survey history, Bechtol clarified that both areas remain severely depressed and a fishery is not anticipated for some time. Staff identified this fishery as a candidate for opening only by emergency order instead of the current calendar opening in regulation.

### *Sea Urchin and Cucumbers*

Both green urchins and sea cucumbers are managed under commissioner's permit. The management strategy has involved fishing east and west of the spit on alternate years, weekly Friday to Monday openings, and logbook and catch reporting requirements. In addition, successful appears to occur only in a single area that differs between these two species. Sea cucumbers appear to be most abundant west of the spit, which opens in even years, and green urchins are most abundant east of the spit, which opens on odd years.

Green urchins are managed for a 2 inch minimum size (inside the spines). Historically the largest harvests have occurred in odd years east of the spit, largely in China Poot Bay. Although west of the spit opened in 1996, only two people registered and nobody fished. The area east of the spit, notably China Poot, did not open in 1995, but will open in 1997 on 1 December if the board adopts the proposed opening date.

On even years the sea cucumber fishery typically yielded 22,000 to 31,000 lb in waters west of the spit, primarily from Tutka Bay and Sadie Cove. The 1996/97 fishery opened west of the spit with a 15,000 lb GHL, set as half the catch in the high harvest years. Of the 8 registered divers, 6 dove, and the 1,500 lb harvest was landed by only 3 divers. Several divers reported finding primarily unmarketable small animals. In Sadie Cove we closed based on the lack of product. Divers also looked in Jakalof and Tutka.

Staff had substantial discussion over the sustainability of the sea cucumber and green urchin fisheries. Bechtol suggested that annual dive fisheries may best be provided by only opening green urchins on odd years in waters east of the spit and opening sea cucumbers in even years west of the spit. This strategy would reduce fleet misconceptions about potential harvest opportunities, cut wasted management effort, and incorporate the primary harvest areas. However, even the biennial sustainability of these fisheries remains uncertain given harvests in recent years. It may be more appropriate to only open every third or fourth year, or not at all, depending upon the resource sustainability of commercial harvests. Given the variety of public proposals for management plans, the lack of biological data could result in very arbitrary management criteria being adopted at the upcoming board meeting. Staff expressed no desire to open cucumbers east of the spit in 1997 because this area has yielded little historically; there was also little staff objection to a possible board closure of cucumbers. Trowbridge will draft a list of current management strategies for urchins and also examine historical data to determine

a threshold CPUE for future openings. The effectiveness of the minimum size to protect a spawning component of the population has not yet been determined; additional biological data is needed to determine the sustainability of the urchin harvests.

### *Weathervane Scallops*

Although state waters technically opened while federal waters were closed due to the F/V Mr. Big scenario, no vessels fished weathervane scallops in Kamishak Bay in 1995. The 1996 fishery opened 15 August and yielded 28,000 lb for 5 vessels. Management measures included check-in and out for each trip, logbooks, and gear limited to a single 6-foot dredge. Regulatory observer requirements are typically waived for this fishery but will be implemented if needed for management control. Gustafson usually makes one observer trip each year to compare observed to reported bycatch rates. Shell samples are also collected from the fishery. In 1996 Trowbridge also flew over the fishery with a handheld GPS to compare observed to logbook-reported locations.

The 1997 GHLL will revert to a maximum of 20,000 lb, pending a review of stock structure. Trowbridge identified three fishery issues to be addressed for 1997: (1) better reporting is needed from the fleet; (2) changes in fishing patterns as additional boats fish continuously day and night; and (3) shell stocking and on-board freezing that caused an underestimate of CPUE and an increase in deadloss. The option of 3-day fishing periods was discussed.

Although regulations specify a GHLL of 0-20,000 lb, the 1996 GHLL was set at 28,000 lb based on the July 1996 survey and the lack of a federal fishery in 1995. The 1996 survey assessed only the primary bed as weather prevented staff from sampling a secondary bed revealed by the trawl survey. The stock appeared to be healthy based on age and size distribution compared to the Kayak stock. Bechtol discussed the underwater video camera borrowed from NMFS for the Kamishak survey. As time permits, tape from five successful tows will be used to calculate dredge catchability. Based on this successful application, the pre-audit included a funding request to purchase a department video, estimated at \$6,000 for entire set-up. The pre-audit split these costs with LCI finfish management assuming shared usage of the video camera.

Using the 1984 and 1996 surveys as a biomass anchor, and age composition data from the surveys and commercial fishery, Bechtol will work with Bue to examine the primary bed productivity through an age structured model. In an effort to examine meat recoveries by age, and allocate historical harvest biomass into age compositions, scallop samples were frozen whole and returned to the lab for more precise measuring. A secondary assessment approach, biomass estimates from the 1994 dredge survey will be compared to 1991-96 trawl surveys.

### *Hardshell Clams*

Gustafson discussed the 1996 fishery in which districts 2, 3A, and 4 were open; existing districts were established in 1995. Harvest areas are limited to DEC certified beaches located

along the south side of Kachemak Bay. The annual GHL of 65,000 lb was set at the 1995 board meeting and after 1995 was broken into quarterly allocations based on industry meetings. Due to cold-weather deadloss problems observed in 1995, the fishery from November to March now opens only if the windchill is  $\geq 20^{\circ}\text{F}$  or if the ambient temperature is  $\geq 32^{\circ}\text{F}$ . Gustafson distributed a 21 January memo documenting a meeting with industry and summarizing survey data and 1997 harvest strategies. All 1997 first quarter harvests averaged 38 lb/hour and have occurred in Bear Cove.

Gustafson reviewed hardshell clam assessments in Kachemak Bay. Chugachik has been sampled annually since 1992, and in 1996 was dug on 3 and 5 June during -5.2 and -4.8 ft tides. Chugachik currently opens on odd years with a 15,000 lb GHL. The 1996 survey indicated a reversal of the decline in survey densities observed in recent years. In addition, legal clam densities appear to have increased. Gustafson and Bechtol intend to expand the age-structured population modeling of the Chugachik littleneck clam population.

Bear Cove was not surveyed in 1996, but might be surveyed in 1997 unless closed by the board. Although Ismailof Island was sampled in June 1996, time constraints limited the sample coverage. The initial survey transects did not cover the area of greatest commercial digging that had generated reports of overharvesting in 1996. As a result, additional transects were added and the Ismailof survey area stratified into heavily harvested and moderately harvested. Sadie Cove was also surveyed in 1996 but needs additional survey coverage to better assess the population.

Gustafson intends to have his clam survey report completed by mid-March. Staff expressed comfort with a 60,000 lb annual harvest for Kachemak Bay. The application of GIS might allow better application of existing survey data, although staff would need to verify, likely over several years, the extent and distribution of potential clam habitat. Chugachik, Ismailof, and Sadie will be surveyed in 1997.

Sport Fish has clam surveys budgeted for FY 98 and Szarzi will work with Gustafson to develop a cooperative operational plan. Hepler and Athons explained that the Kachemak Bay shellfish permit will also apply to hardshell clams, increasing the recreational data from this area.

### *Areas G and H Shrimp*

Trawl shrimp fishing in Area G along the outer Kenai Peninsula occurs under a commissioner's permit. Only one vessel fished in 1996, targeting sidestripe shrimp. Area G was primarily established to complement the superexclusive pink shrimp fishery in Kachemak Bay, but harvests shifted to sidestripes around 1990. Hilsinger suggested the fishery transitions might be clarified if harvest tables showed species composition. Area G also supports a low effort, low yield pot fishery that harvests about 80% spot shrimp and 20% coon stripe shrimp. Current regulations are limited to fishery registration and mesh sizes.

The trawl shrimp in Kachemak Bay has been closed since the mid-1980s. Bechtol has been analyzing historical trawl survey data as part of a study of long-term changes in forage fish populations along the northern Gulf of Alaska. The trawl shrimp survey, now a biennial survey, is scheduled for the end of May 1997. Pink shrimp production is being modeled by a UA-Juneau graduate student who will participate in the trawl survey.

## PRINCE WILLIAM SOUND SHELLFISH

### *Dungeness*

The August survey occurs after the molt and should be the main population indicator. However, differences between surveys in recent years appear to be minor. Surveys in 1997 will be timed similarly to previous years. With a threshold of 8 legal crab/pot, Trowbridge doesn't anticipate an opening in the near future. He would like to examine the potential of a post recruit index to determine stock status. Prior to a fishery opening it would be desirable to observe multiple age class population structure, including broad geographic distribution of both legals and sublegals. Only in the more recent fisheries did open seasons avoid the softshell periods. Trowbridge has pre-audited 1.0 man-month for data entry of historical Dungeness data and will activate the shellfish/groundfish technician a little earlier this year; the 1985-97 data is already entered. Brannian expressed an interest in working closely with Trowbridge and the new FB II on the Dungeness data. Brady agreed that by compiling all available historical Prince William Sound data, we would be better able to identify and write about the basis for our changing management strategies for Dungeness crab.

To better identify and explain our existing shellfish management strategies to the public and other staff, Trowbridge will compile and distribute by 1 April a shellfish management outlook similar to that issued for Central Region groundfish.

### *Tanner Crab*

The Tanner crab fishery has been closed in PWS since 1988 following a 0.5 million crab annual harvest during 1986-1988. The population was assessed by a pot survey from 1978-1991 and trawl surveys from 1991-1995. Based on continued low population estimates, the trawl survey shifted to an alternate year schedule in 1995 with the next survey scheduled for August 1997. As part of a multi-species approach, particularly for pollock, the 1997 survey will be expanded to encompass about 2/3 of PWS. Vessel and survey staffing for the August trawl survey remains unclear given both the Dungeness survey and the scallop fishery in Cook Inlet.

### *King Crab*

Limited fisheries were held to assess the PWS king crab resources in 1991 and 1994. A limited fishery for all king crab species is scheduled for 1997 in western PWS. The 1994 survey allowed two weeks each in northwest and southwest PWS, but generated a very low brown king CPUE compared to historical levels. Trowbridge was impressed by the brown king catch in 1996 subsistence fisheries. Brady questioned the utility of opening the fishery with logbooks compared to stock assessment through a test fish program using good skippers and a systematic survey; approximately \$15,000 is budgeted for shellfish stock assessment, and the test fish program is being increased. An additional concern is the lack of information provided by some of the participants in previous exploratory fisheries; a systematic survey would improve the control over fishing conditions and the validity of the data generated.

Tagging of juvenile king crab would provide meaningful biological information but may be expensive; Hilsinger has experience with spaghetti tagging through the isthmus muscle of king crabs to provide retention through the molt. In 1996, 37 egg-bearing female king crab were successfully transferred to Seward as part of a 5-year study by the Institute of Marine Science. Trowbridge hopes to supplement the study with more crabs in 1997. Bechtol will work on a tagging project plan.

### *PWS Trawl Shrimp*

The PWS trawl shrimp fishery primarily targeted pink shrimp prior to 1987, but subsequently targeted sidestripe shrimp and, infrequently, spot shrimp. The fishery is currently managed under a Commissioner's permit that specifies a 10% pink shrimp bycatch limit, requirements for catch reporting, and a 1 7/8 inch square mesh cod end. The current exploitation rate is set at 20% of the estimated biomass. In 1996 three boats harvested 109,000 lb, with 49,000 lb taken from Pt. Wells. Harvests from the Central and Southwest Districts have been held at 25-30,000 lb during the past few years. Reporting problems in the fishery were exacerbated in 1996 through onboard freezing by the two vessels that are licensed processors. Specific problems included poor estimation of deadloss, particularly for small sidestripes and pinks, and fish. Another issue has been the shift in the fishery to southern Knight Island passage where brown king crab occur but have been poorly documented in catch reports.

Trowbridge would like to: (1) develop a more standardized approach to deadloss estimation given the fleet idiosyncrasies; (2) reduce the fishery harvest rate; and (3) expand onboard sampling to more of the fleet. By using the R/V *Montague* as a work platform after the sablefish fishery, Gustafson will try expand on-board shrimp sampling and observing in 1997. Trowbridge pre-audited for 2-3 observer trips and has a special interest in sampling southwest Prince William Sound. However, if no shrimp trawlers fish following sablefish, Trowbridge would like to use the R/V *Montague* for North Gulf rockfish enforcement.

### *Pot Shrimp*

The last commercial season in 1991 was the first time that large pot mesh was required, although there was poor compliance. The 1991 catch rates of 0.4 lb of tails per pot were well below the historical average of over 0.75 lb/pot.

The pot shrimp survey started in 1989 with 6 sites; 8 standardized sites are currently fished. Survey data from 1994-1996 hasn't been reported yet. Station catch data, in terms of pounds and spawners per pot is available from 1996, but shrimp length and sex data was stored on the computer that was stolen. Trowbridge proposed expanding the 1997 survey coverage by reducing the retention and focusing on yield per pot data. Other sites are needed beyond those currently surveyed in northern and western PWS. Two biological staff are needed for the survey and the pre-audit also included 6 pots with an additional 6 pots anticipated for FY 98. Trowbridge remains concerned about a decline in spawner catch rates despite an increase in mean shrimp size.

The 1997 season will be closed by emergency order in March, with an announcement included in the shellfish management outlook. The survey catch threshold to allow a commercial opening is 0.5 lb of tails, or 1.0 lb whole wt, and 4 spawners per pot. The survey pot does not have a rigid mesh and small shrimp are retained. Any future reopening will involve greater scrutiny of the egg-bearing period. The fishery targets females, with 32 mm identified as the smallest saleable shrimp. As a future fishery approaches, Trowbridge hopes to involve fishermen in a test fishery. It may also be desirable to redistrict PWS prior to an opening.

Bechtol reported working on some of the sport shrimp data collected by Kimker and Donaldson. A paper on the growth of PWS spot shrimp has been published in the Alaska Fisheries Research Bulletin and a paper on the application of streamer tags for spot shrimp is in preparation. An additional paper will look at the migration of tagged spot shrimp after J. Buchanan has retrieved archived data files and entered Loran C location data.

### *Weathervane Scallops*

The weathervane scallop fishery off Kayak Island began in 1992; a new management plan that included observer requirements was implemented in 1993. The fishery was closed in 1994 after the board changed the season to January and the 1995 fishery harvested 48,000 lb with an additional 60,000 harvested out of season by the F/V *Mr. Big*. The 1997 fishery opened from 10-19 January, taking 18,000 lb, of meats with an average catch rate of 235 lb/h east of Kayak and 190 lb/h west of Kayak. Trowbridge will contact G. Kruse to discuss the observer problems in the 1997 fishery. Staff discussed an industry request to reopen the fishery. Hilsinger suggested that given the post-fishery discussion by the fleet, it might be beneficial to identify ranges on the GHL in the future. Given the low effort in the 1997 Kayak Island fishery, confidentiality regulations prohibit the release of harvest data and specific locations, although data on age and size composition are made public.

Stock assessment was historically based on fishery CPUE data, with area-swept surveys conducted in 1995 and 1996 along the eastern side of Kayak Island. Staff felt the eastern bed has been mapped out fairly well and future surveys will include beds west of Kayak. Survey catches in 1996 averaged about 20 lb/tow, except for two tows that exceeded 500 lb. To avoid biasing the survey data, and given the area traditional fished by the fleet, these tows were not included in the survey average used to generate the 1997 GHIL of 17,000 lb. The Kayak population surveyed in 1996 was basically represented by two age classes with few small scallops and lots of brittle stars caught in the survey. This contrasted with Kamishak Bay where a substantial portion of the survey catch was pre-recruit scallops. No survey is scheduled for 1997 so the 1998 GHIL will rely strongly on previous observer and survey data. Because of the current progress, Bechtol intends to issue the 1996 survey report, then work with Trowbridge and Bue to complete the 1995 report. Bechtol would also like to see the 1995 study comparing catch rates of the 8 ft and 15 ft dredges completed, perhaps as part of the 1995 report.

The biological season for Kayak scallops was discussed with respect to the upcoming Board meeting. Staff thought only post-spawning scallops were observed during August surveys, but recently spawned scallops were found in Kamishak July surveys. Thus, a 1 July 1 to 15 February open season should avoid most spawning scallops.

Table 1. Action items emerging from the Central Region shellfish/groundfish staff meeting on 19-20 February 1997.

Name(s)	Due Date	Task
Bechtol/Trowbridge	9/1/97	Develop a meeting date and agenda for a fall shellfish/groundfish staff meeting.
Trowbridge	ASAP	Contact P. Rigby regarding assistance in purchasing a fish ticket computer.
Homer Staff	????	Contact CFEC regarding vessel length measurements (e.g., overall); adjust vessel registrations to be uniform.
Trowbridge	ASAP	Update fish ticket PD.
Brady		Contact Oliva regarding a vacant FT III PCN or upgrading Homer's FT II PCN.
Bechtol	3/9/97	Update summary of commercial and sport/pu catch by species.
Trowbridge	3/9/97	Research literature for Dungeness handling mortality data.
Trowbridge/SF	3/9/97	Develop overhead of historic Dungeness survey data for Board report and deliberations.
Bue/Hanson	3/9/97	Discuss sampling ideas for Kachemak Dungeness.
Trowbridge	3/9/97	Develop a list of urchin management strategies.
Trowbridge	????	Compile and analyze urchin CPUE data.
Gustafson/Bechtol	10/97	Apply ASA model to Chugachik clam data.
Trowbridge	4/97	Produce Shellfish Management Outlook
Bechtol	6/97	Develop project plan for tagging PWS king crab.

Table 2. Individuals who participated in all or a portion of the Central Region shellfish staff meeting, 18-20 February 1997.

Dave Athons	Bill Bechtol (recorder)	Marnee Beverage
Linda Brannian	James Brady	Brian Bue
Roberta Fisher	Steve Fried	Jan Gamble
Rich Gustafson	Kelly Hepler	John Hilsinger
Mukhya Khalsa	Darin Morfield	Beckie Oliva
Ted Otis	Jim Seeb	Charlie Trowbridge
Jim Vansant	Doug Vincent-Lang	



## SHELLFISH/GROUNDFISH STAFF MEETING

Feb 19-20, 1997 Anchorage Office

### I. Introduction (Charlie)

1. Outline meeting & perceived high points
2. Future Meetings
3. Integrated Database

### II. Administration (John and/or James)

- A. Budgets (John/James)
  1. FY97/FY98
  2. Research needs/spending priorities
  3. Governor's Initiative

- B. Admin (Roberta Fisher)

- C. Personnel
  1. Hiring Status
  2. Needs

### III. Vessels

- A. Schedules
  1. Assignments/Sampling/Enforcement (calendars and staffing)
- B. Personnel - Boat Officer seasonal

### IV. Shellfish

- A. Cook Inlet
  1. Dungeness crab (Charlie/Bill)
    - a. Fishery Summary & outlook
      - i. Stock Status
    - b. Surveys - pot & trawl
  2. Tanner crab (Charlie/Bill)
    - a. Fishery Summary & outlook
    - b. Trawl Survey
      - i. Stock status
  3. King crab (Charlie/Bill)
    - a. Fishery Summary & outlook
    - b. Trawl Survey
      - i. Stock status
  4. Urchin & cukes (Charlie)
    - a. Fishery Summary & outlook
    - b. Urchin dive survey

- 5. Scallops (Charlie/Bill)
  - a. Fishery Summary & outlook
  - b. Scallop dredge survey
    - i. Management utility
    - ii. Survey Plan
- 6. Hardshell Clams (Rich)
  - a. Fishery Summary & outlook
    - i. New Management strategies for 1997
  - b. Surveys
    - i. Stock status
  - c. Personal Use
- 7. Trawl & pot shrimp - Areas G & H (Rich)
  - a. Fishery Summaries & outlook
  - b. Trawl Survey
    - i. Stock status
    - ii. Survey schedule
- B. Prince William Sound (Charlie)
  - 1. Dungeness
    - a. Fishery Summary & outlook
    - b. Pot Survey
      - i. Stock status
      - ii. 1997 Survey schedule
  - 2. Tanner Crab
    - a. Fishery Summary & outlook
    - b. Trawl Survey
      - i. Stock status
      - ii. Next Survey?
  - 3. King Crab (all)
    - a. Fishery Summary & outlook
      - i. Use of time limited fishery in lieu of survey for 1997
  - 4. Trawl Shrimp
    - a. Fishery Summary & outlook
      - i. 1997 quota
    - b. Observer trips

- 5.. Pot shrimp
  - a. Fishery Summary & outlook
    - i. Use of another limited fishery
  - b. Pot Survey
    - i. Stock status
- 6. Scallops (Charlie/Bill)
  - a. Fishery Summary & outlook
    - i. 1996 Survey
  - b. Abundance Survey

V. Other Topics

- 1. Shellfish Integrated Database (James/Linda)
- 2. Reports (Bill)

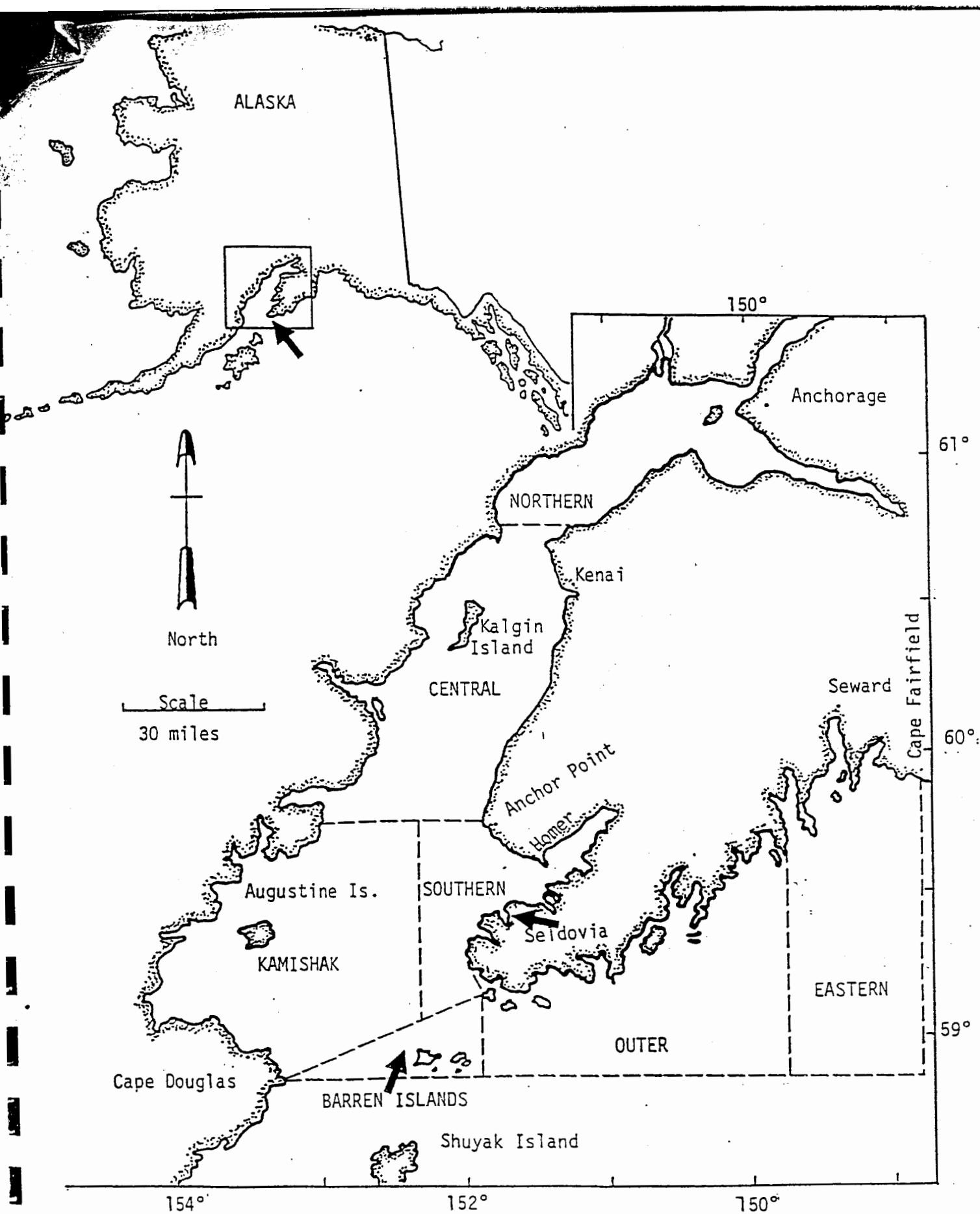


Figure 1. Cook Inlet Management Area.

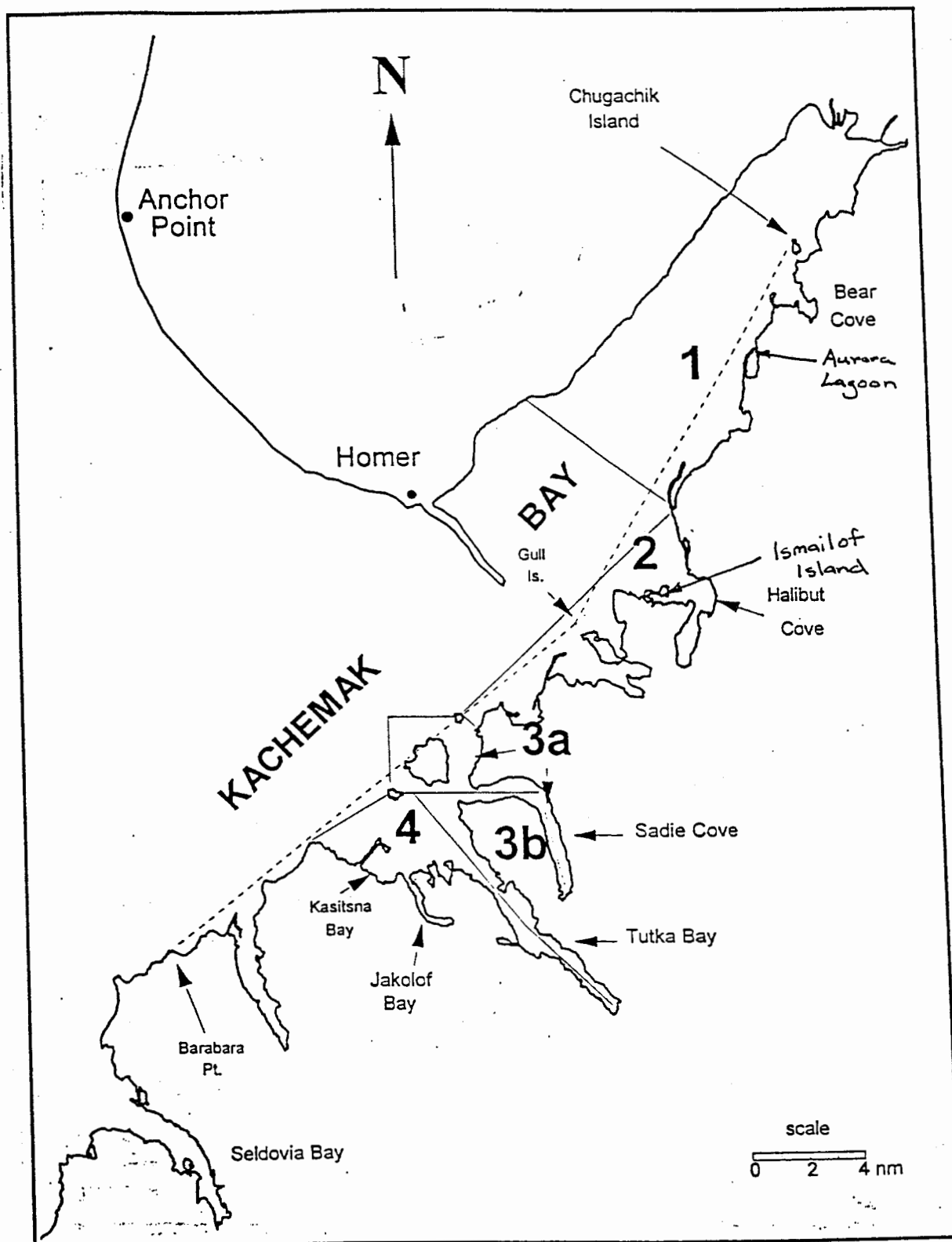


Figure 1. Clam and mussel subdistricts in the Southern District of the Cook Inlet Management Area.



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